

# IMAGE ENCODER

Publication number: JP2200082  
Publication date: 1990-08-08  
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Classification:  
- international: H04N7/30; H04N7/30; (IPC1-7): H04N7/133  
- European:  
Application number: JP19890017608 19890130  
Priority number(s): JP19890017608 19890130

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## Abstract of JP2200082

**PURPOSE:** To improve the encoding efficiency by using correlation remaining between the transform coefficients of blocks which belong to a macro block. **CONSTITUTION:** Symmetric components of even/even, even/odd, odd/even, and odd/odd in horizontal and vertical directions are found from the signal of the macro block, and different linear transformation corresponding to those components, for example, discrete cosine transformation on the even symmetric component, discrete sine transformation on the odd symmetric component are performed. In other words, the content of a memory is segmented setting the macro block consisting of  $(2N \times 2N)$  picture elements as a unit, and difference with the macro block nearer to the content of a transmitted frame is calculated by a subtractor 4. The output of the subtractor 4 is transformed to four components based on even symmetric and odd symmetric characteristic in the horizontal and vertical directions, and the four components are transformed to coefficients corresponding to  $(N \times N)$  frequency components, respectively by an orthogonal transformation circuit 8. In such a way, the encoding efficiency can be improved by using the correlation between the transform coefficients of the blocks.

